

EERI-NSF Rapid and Research Needs Workshop

Breakout Session Title: Preparedness

Discussion Leaders and Recorders: Deborah Thomas, Marc Eberhard

Panel Members: Lauren Alexander-Augustine, Roger Billham, Barry Goodno, Judith Mitrani-Reiser, Justin Yates, Jun Zhuang

Session Overview: The unacceptable human and economic losses to the country of Haiti did not result from an earthquake of particular high intensity. Instead, these losses are mainly attributable to the high vulnerability and low resilience of Haiti's physical infrastructure, social organizations and institutions.

The need to increase disaster preparedness, along with mitigation, in Haiti and other developing countries is irrefutable. However, the challenges for vulnerability reduction and increasing the resilience of such countries are daunting. Research is needed to identify the most effective preparedness and mitigation strategies in developing nations. Those identified by the panel members are organized into two categories around the themes of social/institutional mechanisms and technical approaches.

Social/Institutional Mechanisms for Encouraging Mitigation and Preparedness

- Development of data and methodologies for reliable cost-benefit assessments to help prioritize resource allocation for earthquake preparedness in the developing world.
- Development of economically and culturally appropriate mitigation and preparedness measures, including effective community-based participatory activities.
- Development and assessment of effective communication strategies in the developing world.
- Evaluation and articulation of differential impacts of preparation and mitigation activities, including social justice implications.
- Strategies for being effective within an atmosphere of corruption.
- Development and assessment of grass-root strategies for timely education and technology transfer, including guidance on appropriate construction practices.
- Development and assessment of methods for providing mechanisms/incentives for risk-reduction activities.
- Development and evaluation of strategies to address fragmentary nature of institutions and lack of vision; capacity building around coordination, organization, communication and network planning.

Providing the Technical Basis for Mitigation Activities

- Development of appropriate methods to identify, prioritize and retrofit vulnerable engineered and non-engineered buildings and community
- Development of strategies for implementing a systems approach to the evaluation and improvement of critical facilities, equipment, networks and human resources in a fragile society with limited resources.
- Development of strategies and evaluation mechanisms to optimize performance of interacting human/physical networks with limited resources.